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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/594,971	09/29/2006	Akihiro Muramatsu	9694-000052/US/NP	8193
53800 7590 03/17/2008 GREGORY A. STOBBS 5445 CORPORATE DRIVE SUITE 400 TROY, MI 48098				
EXAMINER COLLINS, DARRYL J				
ART UNIT 2873		PAPER NUMBER		
MAIL DATE 03/17/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/594,971

**Applicant(s)**

MURAMATSU ET AL.

**Examiner**

DARRYL J. COLLINS

**Art Unit**

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-9 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 09/29/2006

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamagishi (U.S. Patent Publication 2005/021706).

Although Yamagishi teaches a projector lens system comprising, from a screen side, a first lens unit having negative refractive power (page 2, paragraph [0027]) and a second lens unit having positive refractive power (page 2, paragraph [0027]) wherein said first lens unit includes a negative meniscus lens element (Figure 2, element L11) being a plastic lens element (page 3, paragraph [0033]), being convex to the screen side and having an aspherical surface (page 3, paragraph [0028]), wherein the second lens unit includes: a negative lens element (Figure 2, element L22); and at least two or more positive lens elements (Figure 2, elements L23 and L24), wherein the deterioration in aberration correcting performance due to heat is limited (page 2, paragraph [0019]), Yamagishi fails to teach such a projector lens system wherein the negative lens element included in the second lens group is plastic and has an aspheric surface as claimed in independent claim 1. However, as evidenced by Yamagishi (page 2 paragraph [0012]), the use of aspherical plastic lenses is well known in the manufacture of projection lens systems such that it would have been obvious to one of ordinary skill in the art to modify the projection lens

system as taught by Yamagishi by substituting an aspherical plastic lens to further improve aberration correction and provide a low cost alternative.

Again, Yamagishi teaches a projector lens system comprising, from a screen side, a first lens unit having negative refractive power (page 2, paragraph [0027]) and a second lens unit having positive refractive power (page 2, paragraph [0027]) wherein said first lens unit includes a plurality of negative meniscus lens elements (Figure 2, elements L11 and L12) including at least one negative meniscus lens element being a plastic lens element (page 3, paragraph [0033]), being convex to the screen side and having an aspherical surface (page 3, paragraph [0028]), wherein the second lens unit includes: an aperture stop (Figure 2, element ST), a negative lens element (Figure 2, element L22); and at least two or more positive lens elements (Figure 2, elements L23 and L24), wherein the plastic lens element of the first lens unit is arranged on a side of the aperture stop (Figure 2) and wherein the deterioration in aberration correcting performance due to heat is limited (page 2, paragraph [0019]), but fails to teach such a projector lens system wherein the negative lens element included in the second lens group is plastic and has an aspheric surface as claimed in independent claim 2. However, as evidenced by Yamagishi (page 2 paragraph [0012]), the use of aspherical plastic lenses is well known in the manufacture of projection lens systems such that it would have been obvious to one of ordinary skill in the art to modify the projection lens system as taught by Yamagishi by substituting an aspherical plastic lens to further improve aberration correction and provide a low cost alternative.

Yamagishi teaches all of the claimed limitations as outlined above with respect to independent claims 1 and 2 above, and further teaches the claimed projection lens system as

being used in a rear projection type projector (page 1, paragraph [0006] and Figure 1) as claimed in dependent claim 10.

### ***Allowable Subject Matter***

Claims 3-9 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claims, in such a manner that a rejection under 35 U.S.C. §102 or §103 would be proper. Although the prior art teaches a projector lens system comprising, from a screen side, a first lens unit having negative refractive power and a second lens unit having positive refractive power wherein said first lens unit includes a negative plastic meniscus lens having an aspherical surface and being convex to the screen side, wherein the second lens unit includes an aperture stop and a negative lens element, the prior art fails to teach such a projection lens system wherein the negative lens element included in the second lens group is a plastic lens having an aspherical surface and wherein the first and second plastic lenses satisfy the conditional expressions as claimed in independent claim 3.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tadic-Galeb et al (U.S. Patent Publication 2001/0023977) and Kobayashi (U.S. Patent Publication 2006/0176577) both teach projection lens systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DARRYL J. COLLINS whose telephone number is (571)272-2325. The examiner can normally be reached on 6:30 - 5:00 Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darryl J. Collins/  
Patent Examiner  
Art Unit 2873

06 March 2008